

IN THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph on page 6, between lines 15-16 of the specification with the following:

FIG. 11 shows a second diffraction structure by means of which the induction coil of ~~FIG. 11b~~ FIG. 10b can be manufactured;

Replace the paragraph on page 10, between lines 8-21 of the specification with the following:

According to the invention the required inclination of exposure beam portions, which should expose side surfaces is realized by a new type of mask. This mask comprises diffraction structures at positions corresponding to the positions of slots, grooves, holes or other kind of interruptions in the substrate wherein conductive strips or wires have to be configured. The diffraction structures perform a controlled deflection of exposure beam portions only at positions where skew exposure is required. Now a perpendicularly incident beam can be used to illuminate the

mask so that the problems of shifting of the exposure pattern and variation of the exposed line width are ~~illuminated~~ eliminated. A specific exposure apparatus is no longer needed and the capabilities of a conventional exposure apparatus can be substantially enlarged. The diffraction structure can be designed such that it diffracts the exposure radiation in two mutually perpendicular directions so that end surfaces extending both in the XZ plane and in the YZ plane can be exposed. It is even possible to expose round vias in the substrate, which allows the manufacture of types of components, which could not be manufactured by conventional methods.

Replace the paragraph on page 11, between lines 1-8 of the specification with the following:

For the envisaged application the intensity of the zero-order beam should be smallest possible, because this beam propagates straightforward through the substrate slots. Also the intensities of the second and higher-order beams should be smallest possible so that all the incident radiation is concentrated in the ~~zero-order~~ first-order beams. The degree in which this can be realized is

called the grating efficiency. This efficiency is determined by the grating pitch  $p$ , the duty cycle, i.e. the ratio of the groove width and the pitch, and the optical depth of the groove. The optical depth is the product of the geometrical depth  $d$  and the refractive index  $n$  of the mask substrate material.

Replace the paragraph on page 11, between lines 20-21 of the specification with the following:

To obtain a first order deflection angle of  $20^\circ$  with a wavelength of 365 nm, the grating pitch should be ~~1067 nm~~1067 nm.

Replace the paragraph on page 12, between lines 3-6 of the specification with the following:

wherein  $n$  is the refractive index of the mask substrate material. If this material is quartz and the exposure radiation has a wavelength of 365 nm, the geometrical depth  $d$  is 397 nm. Currently available lithographic techniques allow the manufacture of phase gratings having such a depth and a pitch of 1067 nm, thus a grating strip width of ~~533 nm~~533 nm.

Replace the paragraph spanning pages 14-15, between page 14, line 29, and page 15, line 3 of the specification with the following:

The diffraction structure embedded in the mask pattern described above is a linear, grating, structure 90, which grating strips may extend in an X direction as shown in FIG. 9a to deflect exposure radiation in the YX plane. In this Figure, and in the following Figures, reference numeral ~~92 and 94~~ 91 and 92 denotes the grating strips and the intermediate strips, respectively. The linear diffraction structure may also be a structure 96 as shown in FIG. 9b having the grating strips and intermediate strips extending in the Y direction to deflect radiation in the XZ plane. The linear diffraction structure may have any orientation between 0.degree. and 360° in the XY plane. The diffraction structure may also be a two-dimensional structure, which allows deflection of radiation both in the YZ plane and in the XZ plane.

Replace the paragraph on page 16, between lines 8-16 of the specification with the following:

For the coil of FIG. 10b the pattern of conducting wires has

the same pitch at the upper and lower surface. The novel method can also be used to manufacture a component having on its upper surface a finer wiring pitch than on its lower surface. FIG. 11 shows such a component 150, which comprises a circular hole 155 in a substrate 120, which hole is surrounded by four rectangular slots ~~150-153~~ 151-154. The inside of the hole is provided with a pattern of conducting strips 157, which join conducting strips 159 at the upper side. Strips 159 spread out to the slots 151-154 to join conducting strips 158 on the ~~in sides~~ insides of these slots 151-154. The pitch of the strips 158, which lead to the lower side of the substrate have a larger pitch than the strips 157.

Replace the paragraph on page 16, between lines 17-25 of the specification with the following:

Another component during the manufacture of which the invention can be used is a field effect transistor (FET) 160 such as the power transistor described in U.S. Pat. No. 6,420,755, which is schematically shown in FIG. 12. This transistor comprises a substrate 162, for example of silicon, which upper surface is provided with a source region 164 and a gate region 166, the

material of which is different from the substrate. The lower surface is provided with a drain region 168, which should be connected to the upper surface by means of an electrically conducting wire or strip 168-169 on side surface 163 of the substrate. One step in the manufacture of this transistor consists of exposing the resist-covered side surface by means of a mask, which comprises a diffraction grating at the position of the side surface.

Replace the paragraph on page 16, between lines 26-32 of the specification with the following:

The induction coil of ~~FIG. 11b~~, FIG. 10b, which may have a high inductance, and the transistor of FIG. 12 are only two examples of a passive component that can be manufactured by means of the novel method. Other types of components for the manufacture of which the invention can be used are a miniature power transformer and antenna. The power transformer comprises an induction coil and a number of windings. The antenna comprises a small block of ceramic material and a metallic pattern on two opposite surfaces, which patterns are connected by means of wiring

pattern on the other surfaces.

Replace the paragraph on page 17, between lines 13-18 of the specification with the following:

The method of the invention is especially suitable to provide a number of components ~~on~~on one side of a substrate with connections to a common layer or electrode structure or the opposite side of the substrate. For the different connections a common hole can be used. As a via for making such a connection requires space in the substrate and is relatively costly to make, use of one hole for several components, for example four transistors, provides advantages with respect space and costs.

Replace the paragraph on page 17, between lines 19-27 of the specification with the following:

FIG. 14 shows four substrate areas 180-183 carrying transistor structures, which are schematically represented by the interrupted contour 185-188. To connect the transistors to an underlying base, the substrate is provided with a central opening 190 on the inner surface of which at least one conducting wire, or conducting strip

192, for each transistor is to be formed. The required strips can be formed simultaneously by means of the novel method wherein use is made of a mask having a two-dimensional diffraction structure. Another advantage of the common hole of FIG. 14 is that the corresponding curvature in each component can be used as a reference when placing the component on a printed circuit board (PCB).